



To: Jake Goettle, Construction Engineer
From: John Pavsek, MDT Alternative Contracting Section Supervisor
Date: April 25, 2022
Subject: CM/GC Alternative Delivery Process
Program Modifications & Benefits Received

PURPOSE

The purpose of this memo is to provide MCA membership with a brief summary of MDT's CM/GC pilot program. Included herein is a summary of changes made to the procurement process through the four-project pilot program. The memo summarizes benefits of the CM/GC delivery process resulting from contractor input into the design phase.

CM/GC SELECTION CRITERIA

Original CM/GC Program Requirements – Following are the key components of the written proposal and interview procedures:

- Current legislation requires a two-part selection: 1) Request for Qualifications, 2) Request for Proposals/Bids. Past CM/GC experience is not being considered as part of the final CM selection process.
- The written technical proposal requirements had a 20-page limit that included sections on proposed team qualifications, approach to collaboration, and proposed innovations.
- In accordance with the MDT CM/GC Guidance document developed in 2018, the best-value selection process included two primary elements, and their weighting are listed as follows:
 - Technical Proposal = 80%
 - Price Component = 20%

The first pilot project weighted the written technical proposal at 66% and the interview at 33% of the overall Technical Proposal score.

- In the interview, MDT provided three questions when the Contractors arrived. They had 15-minutes to review the questions and develop how they would respond. The Contractors have an hour to address the three questions. Note that this format did not promote an open dialog discussion.

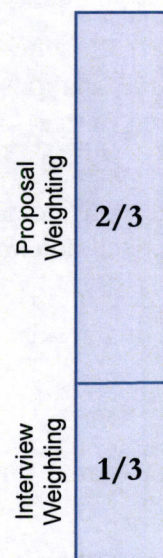
Progression of Program Modifications

- ***Modified interview weighting*** - In response to input from MCA representatives following the first pilot, for future projects, the interview weighting was increased to match the written proposal weighting (50-50). This scoring criteria was implemented for the 2nd, 3rd, and final CM/GC pilot project selection.
- ***Commitment to future interview weighting*** - At the March 15, 2022 meeting with MCA membership, for future CM/GC pilot projects, MDT has committed to further modifying the

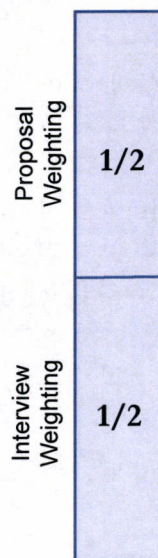
Technical Proposal phase to decrease the written proposal weight to 33% and increase the interview weighting to 66%. Future interview requirements will do away with the three canned questions and allow an open discussion venue. Contractors will be allowed a 15–20-minute presentation followed by 45-minutes of open discussion between MDT reviewers and the Contractor team members.

- *Reduced written proposal requirements* - The effort to produce the future written technical proposal can be streamlined to a 12-page document. MDT will reduce the content requirements that should result in an approximate 50% reduction on effort. More credit will be given to project knowledge, and how the Contractors propose to collaborate with MDT and the design engineers during the design.
- *MCA observation of selection process* – In order to promote selection process transparency to MCA membership, consider including an unbiased representative from MCA executive board or membership in the proposal and interview review process.

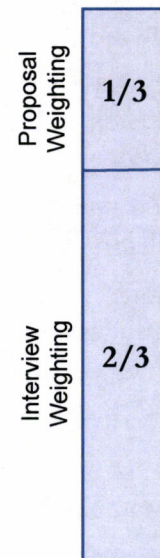
CM/GC PROGRAM MODIFICATION SUMMARY



Initial Program



Current Program



Future Program

Modified interview weight

Increased interview weight

Reduced proposal requirements

Modify interview format

MCA observe selection process

CONSTRUCTION COST DEVELOPMENT PROCESS

In the CM/GC process, an independent cost estimator (ICE) is hired by MDT to provide production-based estimates and schedules. The role of the ICE is to ensure that the contractor's bid prices are competitive and that the construction schedule illustrates logical construction phasing and is performed as efficiently as possible. Following is a summary of the key services that the ICE is responsible for:

- *Approach to Price* - The ICE and contractor review and agree on the cost estimate organization and approach to break-down of construction items.
- *Regional Construction Market* – The contractors pricing must be fair market value consistent with similar projects in Montana. In accordance with the RFP and CM/GC Guidance Document, the contractor is required to price the project as if they are mobilizing their staff, equipment, and materials from local sources.
- *Construction Schedule Development* – Under the terms of the contract, the ICE prepares an independent production-based schedule to be compared with the contractor's construction schedule.
- *Competitive Pricing Approach* – The ICE estimate is compared with the Contractor's cost proposal and Engineer's Estimate to determine if the agreed upon Guaranteed Maximum Price (GMP) or Early Work Package GMP amounts are fair and reasonable.
- *Estimate Reconciliation* - The CM/GC process compares the contractor's estimate with the ICE and engineer's estimate. The ICE reviews all construction work items with the contractor and MDT to determine the reasonableness of the GMP.

MDT's Guidance document states that the contractor's GMP must be within 10% of the ICE estimate. Nationally, the best-practice goal is that the ICE and contractor estimates are within 4%.

SUMMARY OF PROGRAM BENEFITS

Since the initiation of the CM/GC pilot program, one project has been completed (Trout Creek Bridge), two projects are nearing design completion (Salmon Lake Reconstruction and Johnson Lane Interchange), and the final pilot project (MT-200 Bridges) is just starting design. Following are documented benefits that MDT and taxpayers have received from the MDT/Engineer/Contractor collaboration efforts:

- Trout Creek (construction completed)
 - *Agency/Public participation effort reduced bridge closure time (6-weeks) by at least 50% compared with conventional approach (12-16 weeks). Equates to approximately \$2.5 million savings in reduced effort and user costs.*
 - *Construction means and method recommendations by the CM resulted in an additional \$850K savings.*
 - *At project completion, Contractor's final construction cost \$200K under GMP. The savings were risk based contingency items that were not encountered during construction.*
 - *Project team collaboration resulted in the design being completed in 18-months, which was over a year ahead of a traditional delivery schedule.*

- Salmon Lake (at 90-percent complete design)
 - *Contractor constructability review design recommendations to implement innovative rock catchment concepts will save \$180K.*
 - *Geotechnical analysis based on input from the Contractor will save \$800K on slope attenuator design.*
- Johnson Lane IC (approaching 90-percent complete design)
 - *Contractor constructability review input will save \$540K on reduction of the interchange footprint and reduction in bridge spans and length.*
 - *Contractor constructability review will save \$2.1M on maintaining the Interstate profile and lowering Johnson Lane profile.*
- MT 200 Bridge Bundling (approaching 30-percent complete design)
 - *Constructability reviews have resulted in structure type modifications, i.e., use of culverts in lieu of bridges. This process resulted in modifying 5 structures from bridges to culverts, resulting a \$4.0 M scope reduction savings.*

The approximate total CM/GC program savings based on reduced scope generated by the CM = \$9.2M. The total estimated cost of all four projects is approximately \$91.5M. Overall, MDT is realizing a 10% cost reduction associated with use of the CM/GC delivery.